

## **Lake Guardian Scientific Check List**

To be filled out by chief scientist during SOP training or survey preparation

### **Chemicals**

- ☐ Turbidity Calibration and Check Standards (1 set per year)
- ☐ pH Calibration Standards (2 packs per year)
- ☐ pH powdered Check Standards
- ☐ Alkalinity Check Standards
- ☐ Conductivity Calibration and Check Standards
- ☐ Sulfuric Acid (concentrated, 30% solution volume by volume, and 0.02 N)
- ☐ 1:1 Nitric acid for cations
- ☐ Manganous Sulfate
- ☐ Alkaline Iodide
- ☐ Sodium Thiosulfate
- ☐ Starch solution
- ☐ Triton X

### **Equipment Check**

- ☐ pH Meter and Probe
- ☐ pH Meter and Probe for Alkalinity
- ☐ Back up pH meter and probes (probe should be less than 2 years old)
- ☐ Conductivity Meter and Probe
- ☐ Back up Conductivity Probe
- ☐ Turbidity meter
- ☐ Temperature probe
- ☐ Back up Temperature probe
- ☐ Electric Titrator (Winkler DO)
- ☐ Burette system for alkalinity
- ☐ Back up Burette for alkalinity
- ☐ Filtering station
- ☐ Heater for conductivity analysis
- ☐ Back up Heater with Multiple voltage power supplier
- ☐ Sample stirrers

### **Supplies**

- ☐ Cubitainers (4L) & caps
- ☐ 125mL bottles & caps for nutrients
- ☐ 250mL bottles & caps for metals
- ☐ Cuvettes (10mL) for chlorophyll
- ☐ 500-1000 (1mL) bottles & caps
- ☐ GFF (Glass fiber fine) filters for chlorophyll
- ☐ Sartorius 0.45 µm membrane filters
- ☐ Gloves (make sure that all sizes are on ship)

### **To be brought to ship prior to leaving for survey**

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#### Field recording sheets

- |                               |                       |  |
|-------------------------------|-----------------------|--|
| 1) Survey Information         | 7) Chlorophyll a prep | 12) Prep. QA Samples                   |
| 2) Station Information        | 8) Phytoplankton      | 13) Cal. Data Board Chem.              |
| 3) Rosette data               | 9) Nutrient prep.     | 14) Control Standards data Board Chem. |
| 4) Ponar grab data            | 9) Nutrient prep.     | 15) Board Chem. data                   |
| 5) Zooplankton flowmeter cal. | 10) POC, PN, PP prep. | 16) D.O. data Winkler                  |
| 6) Zooplankton & Secchi data  | 11) TSS prep.         |  |

- ☐ Labels for cubitainers and bottles (Color coded)
- ☐ Coolers for sample storage
- ☐ (2) Empty 5 gallon Liquid waste containers

Name \_\_\_\_\_

Date \_\_\_\_\_